# **Math Pathways Task Force**

January 23, 2015 10:00am - 2:00pm

Colorado Department of Higher Education 1560 Broadway -Suite 1600 - Denver, CO 80202

Call-in Number: 1-877-820-7831; Access code: 473156#

To join the webinar: <a href="http://connect.enetcolorado.org/gecouncil/">http://connect.enetcolorado.org/gecouncil/</a>

## **NOTES**

#### Outcomes:

- Review data
- Respond to requests for information that came out of the working groups
- Come to consensus on the "problems" that will form the basis of the task force recommendations
- Start work on identifying solutions
- What to do with April 24 Fac2Fac Conference and gtPathways revision?
- Establish responsibilities and deadlines for next set of homework

In attendance: Dean Allison (UNC), Rick Miranda (CSU), Alexander Hulpke (CSU), Lynn Bennethum (UCD), Shelly Ray Parsons (Aims), Steve Aldrich, (ASU), Rick Ott (CMU), Dave Ruch (MSU Denver), Casey Sacks (CCCS), Rob Tubbs (UCB), Alexsis Venter (ACC), Frank Zizza (CSU-Pueblo), Bruce Vandal (Complete College America), Amy Getz (Charles A. Dana Center), Maia Blom (CDHE) & Ian Macgillivray (CDHE)

10:00 -10:30	Process Check-In  • Review of process and goals  • May 2015 have recommendations.  • Fall 2016 recommended courses being offered.  • Updates on other states
10:30 - 11:00	<ul> <li>Faculty-to-Faculty Conference, April 24, 2015</li> <li>Update on gtPathways competencies and content revisions</li> <li>How to coordinate gtPathways revisions in Faculty-to-Faculty conferences with this task force's work?         <ul> <li>Proposed, revised gtPathways competencies will be vetted at Fac2Fac. Task Force will present recommendations to math faculty. gtPathways math content revision will remain on hold until there has been time for consideration of recommendations.</li> </ul> </li> <li>Clarification on the transfer articulation agreements         <ul> <li>An agreement can be revised at any time by convening the discipline group. CDHE is ready to facilitate this when the Task Force is ready to make recommendations.</li> </ul> </li> </ul>

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### 11:00 - 11:45

#### **Data Discussion**

Review state level data (this handout will be sent later and/or provided at the meeting)

- ASU, CMU & FLC require College Algebra before Statistics.
   American Statistical Assoc. recommends no pre-req for Statistics.
- Question 2 revealed the following institutions have almost equal enrollments in Math for the Liberal Arts, Intro to Stats, and College Algebra: CSU-Pueblo, Ft. Lewis College, MSU Denver, UC Boulder, UC Denver & UNC. How did they accomplish this? To what extent does advising play a part?
- Question 3: Requested data on "How many enrolled in/attempted Calc I?"
  - For college students: 16.35% (2091) enrolled in Calc I after completing College Algebra (compared to 12% who passed Calc I).
  - For concurrent enrollment students: 6.63% (225) enrolled in Calc I after completing College Algebra (compared to 6% who passed Calc I).
- Question 3 indicates a mismatch between the number of students who complete College Algebra and then go on to take Calc I, indicating a possible overreliance on College Algebra as the default math course. Possible causes are 1) some faculty see passing College Algebra as a sort of IQ test and 2) College Algebra is required because that's the way it's always been.
  - Question posed: Do we need a College Algebra class for non-Calculus-track students, if College Algebra is not going to be a terminal class for them?
- Question 4 brought up the point that we need to consider that many students must take pre-calc after college algebra and before calculus. Further, there are many that start in pre-calc. It seems we need to see the data on each of these sequences from each institution to fully understand the role of college algebra in Colorado. Perhaps college algebra as a path to calculus is obsolete and indeed the gateway course should be pre-calc with an option for SAI (co-req dev ed) for students that are not optimally prepared for pre-calc. This would open up an alternative modeling course, stats and math for liberal arts as the other gateway courses, with College Algebra being eliminated (or redesigned as the modeling course).
- Question 5 revealed, under CIP area 24 "Liberal Arts & Sciences, General Studies and Humanities," it appears to be mostly undeclared students getting advised into College Algebra (most of these get AA/AS). Point raised about better advising for undeclared community college students and that meta-majors

	with appropriate gateway math course would help.
11:45 -12:15	"Defining the problem"  Discussion of working group results  See handouts (*Please read prior to the meeting):  Summary of defining problems_CO_2015_01-12.docx  1 Are students in the right gateway math course(s).docx  2 What Should Gateway Math Courses Be.docx  3 Communication between 2- and 4- years about transferarticulation of gateway math courses AV.docx  4 Placement and advising within an institution into the appropriate gateway math course.docx
12:15 - 1:30	Lunch Small groups: Linking Problems, Drivers and Solutions [Handout provided at meeting: 8_Problem-Solution Template_2014_09_14.docx]
1:30 - 2:00	■ Upcoming meetings and events  ■ MAA Rocky Mountain section at Colorado College, April 17-18, 2015. Task Force Panel? Conference website: https://www.coloradocollege.edu/other/maa/  ■ Dean will submit a proposal for us to do a panel April 17 afternoon. Includes: Dave Ruch, Shelly Ray Parsons, Alexsis Venter, Ian Macgillivray & Dean Allison.  ■ Fac2Fac, April 24, 2015. Convene math faculty and Task Force Panel?  ■ Shelly Ray Parsons, Dean Allison, Alexsis Venter, Rick Ott and Ian Macgillivray will present TF recommendations to math faculty in afternoon.  ■ Work assignments  ■ Completed "Linking problems template" due to Dean/Ian February 19 for redistribution to other members. Then look at each other's templates and be ready to discuss.  ■ Next meetings, including 2-day retreat in May?  ■ February 27, 10am – 2pm, CDHE (big conference rm)  ■ April 3, 10am-2pm, CDHE (big conference rm)  ■ RETREAT: May 18, 9:00am – May 19, 5:00pm, location TBD in Denver area (*Really important everyone be here in person please.)

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